MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1 2019/2020

TCS 3191 – CLIENT-SERVER COMPUTING

(All sections / Groups)

15 October 2019
2.30 p.m. – 4.30 p.m.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This examination paper consists of 3 pages (including the cover page) with 6 questions only.
2. All questions carry equal weight (10 marks). The allocation of marks for each section within a question is given in the paper.
3. Answer **ALL** questions.
4. Write your answers in the answer booklet provided.

Question 1 [10 marks]

a) Describe how Automated Transfer Machine (ATM) network is being operated as client-server system.

[2 marks]

b) Illustrate the three-logical tiers of application components. Identify which tier(s) are used for thin client and fat client.

[5 marks]

c) Interglobal Paper Company has asked for your help in comparing its present computer system (i.e. using fat client model) with a new one its board of directors would like to see implemented (i.e. using fat server model). Explain the **THREE** strengths of fat server model.

[3 marks]

Question 2 [10 marks]

a) Argue the **THREE** situations which may require the use of remote procedure call (RPC)?

[3 marks]

b) What are the **TWO** strengths and **TWO** weaknesses of Message Oriented Middleware (MOM)?

[4 marks]

c) What is directory service? What is the main task of directory service?

[3 marks]

Question 3 [10 marks]

a) Why it is advisable for an organization to fragment their data in Distributed Database Management System (DDBMS)?

[4 marks]

b) Explain the **THREE** problems of file server architecture.

[3 marks]

c) What are the **THREE** functionalities provided by Open SQL Gateway?

[3 marks]

Continued...

Question 4 [10 marks]

a) Briefly describe how a withdrawal transaction could satisfy ACID properties.
[4 marks]

b) Define TP-Lite systems and TP-Heavy systems.
[2 marks]

c) Describe **FOUR** tasks of TP monitors.
[4 marks]

Question 5 [10 marks]

a) Describe the different types of distributed objects.
[4 marks]

b) Identify **THREE** processes of object servers.
[3 marks]

c) What is DCOM? Explain how it could be used in building distributed application.
[3 marks]

Question 6 [10 marks]

a) What is Mobile IP? Explain the three features of Mobile IP.
[4 marks]

b) Identify the role of **THREE** different basic components in the architecture of Distributed Multimedia System (DMS).
[3 marks]

c) Explain **THREE** current trends in DMS.
[3 marks]

End of Paper.